

TETRAGONIA TETRAGONIOIDES (AIZOACEAE)
DISCOVERED IN LOUISIANA, U.S.A.

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ABSTRACT

Tetragonia tetragonioides (Pallas) Kuntze is reported for the first time as adventive to Louisiana. This largely southern hemisphere taxon has become widespread around the World. Louisiana is added to the list of nine other states in the U.S. where this species is known to occur.

RESUMEN

Tetragonia tetragonioides (Pallas) Kuntze se registra por primera vez como especie adventicia en Louisiana. Este taxon, mayormente del hemisferio oriental, se ha dispersado ampliamente alrededor del mundo. Louisiana se agrega a la lista de los otros nueve estados en los EE.UU. donde se conoce la ocurrencia de esta especie.

The senior author discovered a single plant of *Tetragonia tetragonioides* (Pallas) Kuntze while performing a botanical survey of Grand Terre Island in Jefferson Parish, Louisiana. This species was observed growing on dry beach amongst coppice mounds between the dune ridge and the high tide line. Grand Terre is a barrier island adjacent to the Gulf of Mexico and is situated just south of Barataria Bay and northwest of the Mississippi River Delta. This represents the first report for the species in Louisiana. Because only one individual was observed, the senior author collected a fragment for a voucher specimen. Associates of this species included *Cakile* Mill., *Amaranthus gregii* S. Watson, *Sesuvium portulacastrum* (L.) L., *Spartina alterniflora* Loisel., and *Suaeda linearis* (Elliot) Moq.

The genus *Tetragonia* L. is comprised of 50–60 species, mostly of the southern hemisphere (Gathe and Watson 2008). *Tetragonia tetragonioides* is the most widespread species and is native to New Zealand and Australia (Prescott 1984); however, it can be dispersed on ocean currents and consequently may have arrived naturally to areas of South America (Fabris 1967; Taylor 1994). USDA, ARS, National Genetic Resources Program (2013) also includes China, Japan, and Taiwan within the native range of this taxon. In New Zealand, *T. tetragonioides* inhabits coastal sand dunes, bluffs, and margins of coastal wetlands (Taylor 1994; Vivrette 2008). The seeds of *T. tetragonioides* can remain viable in salt water for over one month which allows them to successfully disperse via ocean currents (Taylor 1994). Due to its apparent ease of dispersal and to anthropogenic activities, this species can be found adventively or naturalized in many parts of the World (Taylor 1994). In the U.S., *T. tetragonioides* has been introduced in California, Connecticut, Florida, Massachusetts, North Carolina, Oregon, Pennsylvania, West Virginia, and Wisconsin (USDA, ARS, National Genetic Resources Program 2013). It is considered invasive only in California, where it is given an invasiveness rating of “limited,” which indicates that environmental impacts are minor to moderate, or inadequate information is available to designate a higher rating (California Invasive Plant Council 2006).

Tetragonia tetragonioides, commonly known as New Zealand spinach, is consumed by humans and cultivated as a vegetable in various countries around the World, including the United States (USDA, ARS, National Genetic Resources Program 2013; Roskrug 2011; Taylor 1994). Its flavor is similar to cultivated spinach *Spinacia oleracea* L., only milder (Roskrug 2011). Xing (2008) also reports that *T. tetragonioides* is used medicinally.

Voucher specimen: **U.S.A.: LOUISIANA: Jefferson Parish:** Grand Terre Island, growing on beach on south side of island near abandoned buildings, only one plant observed, N 29.27574, W 89.93875, elev. near sea level, 23 May 2012, Javed 7 (LSU, #131803).

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